THE EFFECT OF USING WORD CHAIN GAME ON THE STUDENTS' VOCABULARY MASTERY AT SEVENTH GRADE OF MTs SKB 3 MENTERI BINGKAT IN ACADEMIC YEAR 2017/2018

THESIS

Submitted to Faculty of Tarbiyah and Teachers Training Sate Islamic University of North Sumatera Medan as a Partial Fulfillment of The Requirement for the Degree Of Sarjana Pendidikan

By:

JERNI ARIYANTI GULTOM
34.14.3.035

Advisor I

Dr. H. Amiruddin, MS, MA, MBA,Ph.D
NIP.19550828 198603 1008

Advisor II

Dr. H. Syaukani, M.Ed.Adm
NIP.19600716 198603 1 002

FACULTY OF TARBIYAH AND TEACHERS TRAINING

DEPARTMENT OF ENGLISH EDUCATION

STATE ISLAMIC UNIVERSITY

OF NORTH SUMATERA

MEDAN

2018

THE EFFECT OF USING WORD CHAIN GAME ON THE STUDENTS' VOCABULARY MASTERY AT SEVENTH GRADE OF MTs SKB 3 MENTERI BINGKAT

Jerni Ariyanti Gultom

Department of English Education, State Islamic University of North Sumatera (UIN-SU)

Abstract

The aim of this research is to know the students' vocabulary mastery that were taught by using word chain game. The method of this research is quantitative research. The data were taken from written test that was given to students. The test consists of 20 items. This research was done to 40 students as the sample in experiment class and control class. From the result, the student's mean score of post test is higher than the students mean score of pre-test. The formula that used to analyze the data was t-table was. The result of t-test was higher than t- table. The researcher found that the mean of pre-test in experiment class was 73.75 and control class was 68.125. Mean of post-test in expeiment class was 84.625 and control class was 76. it was found that $t_{observation}$ was 2.73, whereas the t_{table} was 1.994 for $\alpha = 0.05$. The $t_{observation}$ was higher than t_{table} (2.73>1.994), so H_a was accepted while H_o was rejected. It means that there was significant effect of using word chain game.

Keywords : Word Chain Game, Vocabulary, Mastery.

ACKNOWLEDGEMENT

In the name of Allah, the beneficient, the merciful.

Praise be to Allah, the cherisher and Sustainer of the world, who has given the writer many things such as chance to learn, strength, motivation, and guidance for the writer, therefore this paper can be finished thoroughly. Peace and blessing be upon to Prophet Muhammad SAW, his families, his relatives, and all followers.

This thesis is written to fulfill one of the requirements to obtain the S-1 program at English Department of Faculty of Tarbiyah Science and Teachers Training, State Islamic University of North Sumatera (UIN SU).

In finding the research, I have encountered some difficulties such as collecting the references, finding the data and especially in analyzing the data. I realized that without much help from numerous people, this thesis wouldn't finish effectively. That's why obviously I would like to thanks to the following people:

1. My beloved father Parlindungan Gultom and my beloved mother Yuranda Sinaga, who always given me advices, suggestions, and spirits, so that I can finishing this final task and also their prayer as the greatest power on this earth that makes me easy to do this thesis, big thanks for your endless love.
2. Dr. H. Amiruddin, MS, MA. MBA.Ph.D andDr. H. Syaukani, M.Ed.Adm as my advisors who have guided me and given me advices and suggestions in writing this thesis.
3. Prof. Dr. Saidurrahman Harahap, M.A as the rector State of Islamic University of North Sumatera (UIN SU).

4. Dr. Amiruddin Siahaan, M.Pd as a Dean of Faculty of Tarbiyah Science and Teachers Training State of Islamic University of North Sumatera and all of the administration staff.
5. Dr. Sholihatul Hamidah Daulay, S.Ag, M.Hum as head master of English Department for the facilities that given to me during the completion this thesis.
6. For all of lecturers in Faculty of Tarbiyah Science and Teachers Training State Islamic University of North Sumatera, especially in English Department.
7. My beloved sisters, Fatimah Yohanna Yanti Gultom, Nurkoriah Ramadhani Gultom and my brother Muhammad Rohiman Gultom, Dedi Alfandi Gultom and all of my big family who always pray me to success.
8. My beloved Friends in PBI-2 (2014), especially Nirma Azizah Tanjung, Wila, Vina, Nita, Irmayani, my FERSJE and also all of my friends as my inspiration in learning, my favorite hello and my hardest good bye, always support, and pray each other. See you on the top guys!

Medan, 10 July 2018

JERNI A. GULTOM
34143035

No :Istimewa Medan, 13 July 2018

Lamp :- Kepada Yth.

Hal: Skripsi Bapak Dekan Fakultas

Ilmu Tarbiyah dan

Keguruan UIN SU

a.n Jerni Gultom

di

Medan

Assalammualaikum

DenganHormat,

Setelahmembaca, meneliti, danmemberisaran-saran perbaikanseperlunya, terhadapskrip simahasiswa:

Nama :Jerni Gultom

NIM :34.14.3.035

Jurusan/Prodi :PendidikanBahasaInggris

Judul:**"The Effect of Word Chain Game on The Students' Vocabulary mastery at Seventh Grade of MTs SKB 3Mentery in Academic year 2018/2019.**

Dengan ini kami menilai skripsi tersebut dapat disetujui untuk diajukan dalam sidang munaqasyah Skripsi pada Fakultas dan Keguruan UIN Sumatera Utara.

Demikianlah kamisampaikanatas, perhatiansaudarakamiucapkanterimakasih

WasalammualaikumWr. Wb.

Advisor 1	**Advisor II**
Dr. H. Amirudddin, MS, MA. MBA.Ph.D	**Dr. H. Syaukani, M. Ed.**
NIP:19550828 1986031008	**NIP:19600716 198603 1 002**

TABLE OF CONTENTS

Page

LIST OF TABLES

Table **Page**

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

1.1 Background of the Study

English as an international language is used to communicate among people all over the world. In learning English, many students do not have enough courage in mastering the four skills of language such as; listening, speaking, reading, writing. That is the common problem especially in our country.

A good vocabulary is a vital part of effective communication. A command of many words will make you a better writer, speaker, listener, and reader. In contrast, a poor vocabulary can seriously slow your reading speed and limit your comprehension. Studies have shown that students with a strong vocabulary and students who work to improve a limited vocabulary are more successful in school. One research study found that a good vocabulary, more than any other factor, was common to people enjoying successful careers.

But in reality, based on the writer's first observation at MTs SKB 3 Menteri, The students have a problem in mastering vocabulary. They can't pronounce the vocabulary correctly. They make mistake in writing the vocabulary.

There are two factors that influence the low level in mastering vocabulary: internal and external. The internal factors are less motivation on the students, lack of practice, learning style, less interest, and etc. the external factors are environment, teacher's performance, teaching approach, friends, strategy, media, tool, etc.

There are many kinds of game in teaching vocabulary. In this case, the researcher will choose one game. The teacher will use word chain game in learning process. The use of a games in teaching considered is one of the solutions. One of the game that can be used to solve the problem in teaching English vocabulary is using word chain game.

The reason why the writer choose word chain game is believed as an effective way to increase student's vocabulary achiement. In this case, the writer chooses word chain game in English teaching learning process because word chain game is one of the games in which students can express their English vocabulary when they speak in teaching learning process. Therefore, when students play this game they should mention the word. By using this game, the students will be more interactive and think critically that will make students more active in English learning process.

1.2 Identification of the Problem

There are many problems that can be identified concerning with vocabulary mastery: a) many students lack of practice because in their mind English vocabulary is difficult, b) They feel boring and un enjoyable because the situation in learning English is saturated, and

1.3 Limitation of the Problem

Based on the identification of the problem above, the researcher was focused on the students vocabulary mastery taught by using word chain game.

1.4 Research Question

Based on the identification of study and the limitation of the study, the formulation of the problem in this research is: Is there any significant effect of students' vocabulary mastery taught by word chain game than without word chain game?

1.5 The Objective of the Study

From the formulation of the study above, the objective of study is to find out there was a significant effect of students' vocabulary mastery taught by word chain game than without word chain game.

1.6 The Significance of the Study

The findings of this research are expected to be useful theoretically and practically. Theoretically, this study is useful to the theory of knowledge or science, especially vocabulary mastery. Practically, this study is useful for headmaster, English teacher and other researchers.

1) The principal of MTs SKB 3 Menteri as an input how to increase the quality of the English teachers in teaching vocabulary.

2) The English teacher, as an input in teaching vocabulary in order to increase the students' vocabulary mastery.

3) The other researcher who will do further research about the vocabulary mastery.

CHAPTER II

THEORETICAL REVIEW

2.1 Theoretical Framework

This research is conducted based on the related theories in this study, In this case, the theoretical framework aims at giving a clear concept applied in this research in order to avoid the misinterpretation of some terms related to the research.

2.1.1 Vocabulary Mastery

2.1.1.1. Mastery

Mosher states that mastery is simply reaching a certain level of understanding of particular content.[1] Bloom, the mastery learning theory is based on the idea that cognitive introduction behaviors pre-learning which is assumed to be necessary for learning a unit which are the students' characteristic, emotional introduction features the level of motivation to learn the unit and the quality of teaching activity are the basic indicators of learning output. The variables clue, reinforcement, students' participation, feedback and correction, which bloom described as the quality of teaching activity, explain the activities which are prepared by the teacher to enable mastery learning. According to this theory, if the related introduction features of the student along with the teaching activities are positive, the learning output will reach a high level and in respect to these ouputs, the differentiation between the students will be at the minimum level.

[1]Thomas R. Guskey. In search of a useful Definition of Mastery. Access date on Thursday, 23th M arch 2018 time 11.00

In Al-Qur'an verse At-Tin:4

لَقَدْ خَلَقْنَا ٱلْإِنسَٰنَ فِىٓ أَحْسَنِ تَقْوِيمٍ ۝٤

The meaning:

"Verily we created man in the best possible form".

a. Definition of Vocabulary

In Oxford learner's pocket dictionary states that vocabulary is all thewords that a person knows or uses. Vocabulary is all the words in a language. Vocabulary also lists of words with their meaning. Moreover, in Cambridge dictionary states that vocabulary is all the words that exist in a particular language or subject.[2]

According to Harris and Hodges (as cited in Israel) "vocabulary is a toolto communicate known words with others". It means vocabulary is the main goals in learning English and vocabulary is the important aspect for students to master their skill to read, listen, write, and speak English.[3]

Richards and Renandya mention that vocabulary is the center segment of language proficiency and gives a great part of the premise to how well

[2]Oxford learner's pocket dictionary .(2008). Newyork: Oxford university express.

[3]Israel, S. (2008). *Vocabulary Lists and Activities for the PreK-2 Classroom:Integrating Vocabulary, Children's Literature, and Think-Aloud to Enhance Literacy*. Retrieved February 15th, 2017 from books.google.co.id.

learners speak, listen, read, and write.[4]Furthermore, Nunan said that vocabulary is a rundown of target language words.[5] It can be said that vocabulary is one of the language components that must be learned in learning English.

From the definition above, the writer concludes that vocabulary is the important aspect in language learning to develop the four skills of students' ability in a process of teaching language. Without knowing any vocabularies, the students will difficult to speak, write, listen, and read English. Because vocabulary is the first element that should be learned by the students of language learning inimproving the mastery of English vocabulary. The other components or skills of English will be easier to study and understand if the students know a lot of vocabularies.

In Al-Qur'an Allah SWT required human remember to all the name of anything. Allah SWT said in surah Al-Baqarah verse 31:

﴿٣١﴾ صَٰدِقِينَ كُنتُمۡ إِن هَٰٓؤُلَآءِ بِأَسۡمَآءِ أَنۢبِـُٔونِي فَقَالَ ٱلۡمَلَٰٓئِكَةِ عَلَى عَرَضَهُمۡ ثُمَّ كُلَّهَا ٱلۡأَسۡمَآءَ ءَادَمَ وَعَلَّمَ

The meaning: And He taught Adam the nature of all things, then He placed them before the angels, and said: "Tell me the nature of these if ye are right."

---

[4]Felder, RM & Brent, R. (2005). Understanding Student Differences. *Journal ofEngineering Education, 94 (1), 57-72.* Accessed on March 15th, 2018 fromwww4.ncsu.edu/unity/lockers/users/f/felder/public/.../Understanding_Differences.pdf

[5]Nunan, D. (1992). *Designing Task for the Communicative Classroom.* New York: Cambridge University Press. Accessed on march 25th 2018 fromhttps://www.slideshare.net/zoneanan/nunan-designing-tasks-for-the-communicative-classroom.

Based on the verse above the researcher concludes that God taught Adam's names entirely, which gives him the potential of knowledge about the names or words used pointed objects, or objects of teaching function. This verse informs that God endowed human potential to know the name or function and characteristics of objects, such as fire function of the wind, and so forth. He was also awarded the potential to speak.

In teaching English, vocabulary should be used consistently. Billmeyer (as cited in Preszler, said: "Students must use a word between six and fourteen times before they are capable of using it independently".[6] It means students must be diligent in using the vocabulary that has already known. That is the way the teacher need to apply the best method and the interactive way in teaching English vocabulary to make students interested in developing their vocabulary.

Vocabulary takes an important role in teaching English to build the language proficiency. The student will have a good language proficiency in four language skills if the students know a lot of vocabularies. All that vocabulary will be used by students when they communicate with other people.

So, the students in language teaching should use their vocabulary when they speak with other students. In other words, they should improve their speaking skill before the other skills. This skill will be improved by knowing a lot of vocabularies.

---

[6]Bloom, B. S. (1968). Learning for Mastery. *UCLA - CSEIP Evaluation Comment,center for the study of Evaluation of Instructional Programs*,1(2), 1-12.Accessed March 3rd 2018 from *programs.honolulu.hawaii.edu.intranet.*

b. Kinds of vocabulary

Some experts divide vocabulary into two types: active and passive vocabulary. Harmer distinguishes between these two types of vocabulary. The first type of vocabulary refers to the one that the students have been taught and that the students have been taught and that they are expected to be able to use. Meanwhile, the second one refers to the words which the students will recognize when they meet them, but which they will probably not be able to pronounce. Haycraft, quoted by Hach and Brown indicate two kinds of vocabulary, namely receptive vocabulary and productive vocabulary.[7]

To teach vocabulary, there are two kinds of vocabulary that should be familiar with vocabulary can be divided into two kinds, namely receptive vocabulary and productive vocabulary.

1. Receptive vocabulary

Receptive vocabulary larger than productive ones. Vocabulary or words we recognize when we see or hear them, usually in reading and listening. Gaims and Redman state receptive vocabulary as the language items can only be recognized and comprehend in the context of reading and listening material.[8] It can be concluded that: Receptive vocabulary is words that can not be produced correctly but understood through reading and listening activity and it requires a reader to associate label as in reading or listening.

---

[7]Hatch, E. & Brown, C. (1995). *Vocabulary, Semantics, and Language Education*. Cambridge: Cambridge University Press. Ibid journal

[8]Gaims, R and Readman S. (1986). *Working with Words: A Guide to Teaching and Learning Vocabulary*. Cambridge: Cambridge University, p. 65

a. Productive vocabulary

Productive vocabulary is involved in using the words to stand for the meaning it represent and being able to think of suitable for the word if there are any. Productive vocabulary includes words that we use when we speak or write. Jackson define that the words that we use in our owwn speech and writing are called productive ar active vocabulary. Gaims and Redman states that productive or active vocabulary means language items which the learners can recall and use appropriately in speech or writing.[9]

In conclusion from the explanation about kinds of vocabulary above, it is so important to teachers and learners to know and understand the kinds of vocabulary before doing the process of teaching-learning vocabulary.we can develop our vocabulary through out our whole lives, we can learn new words and explain our knowledge from our experience. Moreover, the vocabulary itself has diffrent difiding of vocabulary kinds which can also affect teaching-learning instruction and objectives.

Vocabulary also can be divided based on language skills, they are :

a) Reading vocabulary

A literate person's reading vocabulary is all the words he or she can recognize when reading. This is generally the largets type of vocabulary simply because a reader tends to be exposed to more words by reading than by listening.

1. Listening vocabulary

[9]Ibid, p.65

A person's listening vocabulary is all the words he or she can recognize when listening to speech. This vocabulary is aided in size by context and tone of voice.

2. Speaking vocabulary

A person's speaking vocabulary is all the words he or she uses in speech. It is likely to be a subset of the listening vocabulary. Due to the spontaneous nature of speech, words are often misused. This misuse- though slight and unintentional may be compensated by facial expression, tone of voice, or hand gestures.

3. Writing vocabulary

Words used in various forms of writing from formal essays to writter fedds. Many written words do not commonly appear in speech. Writers generally use a limited set of words when communicating. For example if there are a number of synonyms, a writer will have his own preference.

وَكُلُّصَغِيرٍوَكَبِيرٍمُّسْتَطَرٌ

The meaning:

"and everything, small and big, is written down" (Al-Qamar 54:53).

2. Word Chain Game

a. Definition of Word chain games

Word Chain Game is one of the games used in teaching language learningfor English as a Second Language (ESL) or English as a Foreign Language (EFL). Firmansyah and Adi mentions that Word chain game is a well-known game that

has been applied in language teaching class for a long time.[10]Meanwhile, Robico states that word chain game is a common game that used for English-Speaking game. Based on those opinions, it can be said that word chain game is one of the games can be used by the teacher in language teaching process.

﴿٢٤﴾ طَعَامِهِۦٓ إِلَىٰٓ ٱلۡإِنسَٰنُ فَلۡيَنظُرِ

" Then let the man take care of his food".

It means that the human should think to make someone creative.

In japan, Word Chain Game well-known as *Shiritori* game. The Japanese give the definition to *Shiritori* game as a Japanese Word Chain Game. Hyakka argues that *Shiritori* game is a word game played by making a chain of wordsand each of players must say a word which is starting with the last syllable of the word that has already given by the previous player.[11]

Word chain game specially used in vocabulary teaching learning process. Adachitoka said that "someone says a word, and the next person has to say a word that starts with the last letter of the previous word".[12] Moreover, Robicodefine word chain game as a game to create a new word by taking the last letter of the previous word. So, each of players must say word by word

[10]Firmansyah, A.Y. & Adi, H (2015). Applying The "Word Chain" Game To Teach Descriptive Speaking To The Eight Graders In Smpn 26 Surabaya. *JurnalMahasiswa UNESA, 3 (2), 1-7.* Retrieved March 2nd, 2017 fromhttp://jurnalmahasiswa.unesa.ac.id.

[11]Hyakka, Y. (2014). *Kazuhide: Nihon'nobunka kanko rekishi jiten*. Retrieved March2nd, 2017 from books.google.co.id.

[12]Adachitoka (2015). *Noragami: Stray God Volume 5: Stray God 5*, Volume 8.Retrieved March 8th, 2017 from books.google.co.id.

when they play this game. In other words, they will try to recollect all of their vocabularies that they have known before. It means, the writer can say that the rule of this game suitable to improve the mastery of English vocabulary.

Using games in teaching language. Nowadays, games is used as technique in teaching english because teaching english as foreign language is not an easy task for people and in order not to get bored soon, teacher needs to create fun in the process of teaching and learning. According to Dorry, "one of the strongest beliefs about foreign language teaching is that whole process of teaching and lea rning should be fun[13]". It's means that games help and encourage many students to sustain their interest in learning english because they are amusing, interesting and challenging. Playing games in the classroom develops the ability to cooperate well, to compete without being aggressive and to become a winner, games also can be used to give practice in all language skills.

Here is the verse of Holy Qur'an about nature as the learning source:

أَفَلَمْ يَنظُرُوٓاْ إِلَى لسَّمَآءِ فَوْقَهُمْ كَيْفَ بَنَيْنَٰهَا وَزَيَّنَّٰهَا وَمَا لَهَا مِن فُرُوجٍ

Meaning:

"Have they not looked at the heaven above them, how We have made it and adorned it, and there are no rifts in it? (Qaf 50:6)

The importance of learning process is supported by teaching of Islam. Islam is a religion which establishes compulsory education with the following hadith :

[13]Dory GN . (1996). *Games for Second Teaching Learning*.cambridge: university press . p. 26

طَلَبُ الْعِلْمِ فَرِيْضَةٌ عَلَى كُلِّ مُسْلِمٍ وَمُسْلِمَةٍ

The meaning : “Seek knowledge is obligation for moeslim”.

According to Huyen, “games have been shown to have advantages and effectiveness in learning vocabulary in various ways. Firts, games bring in relaxation and fun for students, thus help learn and retain new words more easily, second, games usually involve friendly competition and they keep learners interested. These create the motivation for learners of english to get involved and participate actively in learning activities. Third, vocabulary games bring real world context ito the classroom, and chance student’s use of english in a flexible and communicative way[14]. From the statement above, games have a significants to increas vocabulary learning in the clasroom.

According to Langeling and Malarcher “There are general benefits of games namely; affective, cognitive, class dynamic and adaptability[15]. In Affective we see the lowers affective filter, encourage creative and spontaneous use of language, promotes, communicative, competence, motives and the last fun. In Cognitive we see the benefit as reinforce, reviews and extends, focuses on grammar communicatively. In Class dynamics as students centered, teacher acts only, as facilitator, builds class cohesion, foster whole class participation, promote

[14]Huyen . (2003). *The Effectivness of Learning Vocabulary Through Games.United State:* NTT. P.67

[15]Langeling MM and Malarcher. (2014). *A Natural Resource for Teacher the InternetTESL*. *vol, 35*.no,4.

healthy competition. In Adaptability easly adjusted for age, level and interest, Utilaze all four skills, require minimum preparation after development

Based on the explanation all above, it can be seen the significant of using game in the teaching and learning process, especially in the teaching and learning vocabulary.

b. The principle of chain word game

The principle of word chain technique as follows: the first, actually the students knows meaning a word. The second, in teaching vocabulary is intentional in nature, the next is the students should select the words that do not fit into list and giving reason for their choices. It means words that student use or choose can easier to learn or understand and of course the words the students use should general or familiar for them. And the last, the important point is correct the meaning of word and the students are divided into several group to facilitate discussion. It means that all the principle of this game to make understand first about vocabulary and how they play.

c. The design of chain game

The design of chain game of this game using classroom research because focus on the group discussion. Researcher hope in playing game in connected word can success in using game in class.Using game as classroom action research make students close each other and can know how they mastery in vocabulary.

d. The procedure of chain word game

Word chain Game takes the important roles from the teachers and thestudents. Without a teacher and students, this game will not be able to apply in the context of teaching language learning. Firmansyah and Adi stated that when the Word Chain Game is played in a class, the first player is most likely the teacher and is followed by the rest of the class. In the class, the teacher can control the students to play this game that related to the theme has been given by the teacher and the teacher can also to be a first player that followed by all of the students in the class.[16] According to Aryani said that "it is recommended that teachers begin by dictating the words, and then challenges to come up with another way to solve the three and four letter wordchains, while alternative solutions for the five letter wordchains are more limited".[17] It means that to make students increase in vocabulary should use problem and solving in vocabulary.

The word chain game was invented in the late 19th century by Carroll, author of Alice in Wonderland. He also states that word chain is a kind of game purposing to improve the players' ability in mastering vocabulary or words.[18] Furthermore, Hemscott states that, "it is also an aid to spelling, playing word

[16] Firmansyah, Op.cit

[17] Aryani,W.(2015).*The Effectiveness of Using Wordchain Game toImproveVocabulary Mastery.* (Bachelor's thesis, State Institute for IslamicStudies Salatiga,Indonesia).RetrievedJune20th2017fromperpus.iainsalatiga.ac.id/docfiles/fulltext/3491857186.pdf.

[18] Carroll, Lewis.(2007). *Word Chains-the game of subtlechanges*. Retrieved on March 20th2010 at 09; 45 pmfrom: www.wordchains.com/faq.php

games help create an interest in words and their spelling". [19]As Decure states that word chain is a game in which the end of one word is the beginning of the next one.[20] In addition, Vetter states that**,** word chain is a list of words where each word differs from its neighbor by exactly one letter.[21]

In playing word chain game, the participants are able to use the last letter of previous word to create a new word. In this game, the player must write a word that begins with the last letter of the previous word, as in the following example: Love– Eat – Tea – Apple--Ear and so on. It should be relate with environment in education.

According to Rini, the steps of Word Chain game as follow; For the first step, Determine the category of the word you will play. For example: Fruit.The next, point out one player to say one word about fruit. For example: Banana. Then, the next player should say the name of other fruitwhich begin with the last letterof the previous word.For example: Avocado. Next, the third player said Orange and so on. Next, the player that could not answer should out of the game.[22]

In addition, Rini illustrates some other steps as follow. First, choose the word category, for example: Animal. Second, first player can use the word

[19]Hemscott. (2007). *Word Chains*. Retrieved on March 20th 2010 at 09; 45 pm from: www.spelling.hemscott.net/puzzles12.html

[20]Decure, Nicole. (1993). *Designing vocabulary games:How to Use Words From Text. Vol 31 no.3, july-september 1993.* Retrieved on March 20th2010 at 09;

[21]Vetter, Keith. (2006). *Word Chain*. Retrieved on March 20th 2010 at 09; 45 pm from: wiki.tcl.tk/17031.2006

[22]Rini, Ayu. (2008). *Excellent English Games*. Jakarta: kesaint Blanc.

Elephant, and then he/she asks one of the other players to say the other name ofanimal which begin with the last letter of the previous word. Third, "T" as the last letter of word "Elephant" will be the first letter of the next name of animal.The player will be out of the game if she/he cannot givethe right answer. And the game will continue with thenew category, Such as fruit, food, profession, etc.[23]The words chain will be like the following example:

First player: Elephant, Second player: Tiger, Third player: Raccoon

Fourth player: Nymph, Fifth player: Horse, Sixth player: Eel, Seventh player: Lion, etc

Referring to the theories above, it can be concluded that the word chain game is the game that is played by using the last letter of the previous word to create a new word. Example: book, king, gold, doll, lamp, picture, and so on.

In playing Word Chain Game, students try to connect one of English words to another English word. By applying this game, the students will recall all of English words in their mind or the English words that they have memorized or they have known before. Word Chain Game also helps students to explore the linkages among the English words, understand the meaning of the words, and remember the meaning of that words.

[23]Ibid.

According to Eichel, in playing Word Chain Game, each of words does not allow to be repeated.[24] It means in playing this game, students will produce the new English words and they will hear the pronounce of the new words from their friends or from the other students. In other words, they will be familiar and know the words they have never heard before.

Eichel also states that the first player in saying the first word may start with any letter. [25]To help students to play this game related to the theme that hasbeen given by the teacher, the teacher can be the first player and this teacher can say the first word that related to the theme that has been chosen.

In other words, when this game is applied in the teaching learning process, the teacher needs to help the students.

e. The advantages of word chain game

There are some experts' statement dealing with the advantages of game and word chain game.

1. Game

According Agoestyowatistates that, "games allow students to: work co-operatively, compete with each other, strategize, think in a different way, compare and share knowledge, learn from others, learn from mistakes, work in a less

[24]Eichel, C. (2014). *Grade 4 Word Chains and Games Critical Thinking Activities.*Retrieved March 2nd, 2017 from books,google.co.id.

[25]ibid

stressful and more productive environment, and allow people to have fun".[26]it means that games make easy to learn what the students needed in learning study. Hadfield in Deesri states that the main focus of using games in class is to help students learn and have fun.[27]

2. Word chain game

Carroll, states that word chain is a kind of game purposing to improve the players' ability in vocabulary or words.[28] It means that with playing game make students easy to increase their ability in comprehend the words.

Hemscott states that, "it is also an aid to spelling, playing word games help create an interest in words and their spelling."[29]Of course make students easy to spell.

Based on the experts' statement above, it can be concluded that there are many advantages of game and word chain game. The advantages of game are to allow students to: work co-operatively, compete with each other, strategize, think in a different way, compare and share knowledge, learn from others, learn from mistakes, work in a less stressful and more productive environment, and allow

[26]Agoestyowaty, Redjeki. (2007). *102 English Games(from A to Z)*. Jakarta: PT. Gramedia Pustaka Utama.

[27]Deesri, Angkana.(2002). Games in ESL and EFL Class, Khon Khaen University, Khon Kaen, Thailand

[28]Carroll, Lewis. (2007). *Word Chains-the game of subtlechanges*. Retrieved on March 20th2010at 09; 45 pmfrom: www.wordchains.com/faq.php

[29]Hemscott. (2007). *Word Chains*. Accessed on March

20th 2018 at 09; 45 pm from: www.spelling.hemscott.net/puzzles12.html

people to have fun". And the benefit of word chain game is to improve the players' ability in mastering vocabulary or words.

f. The Disadvantages of Chain Word Game

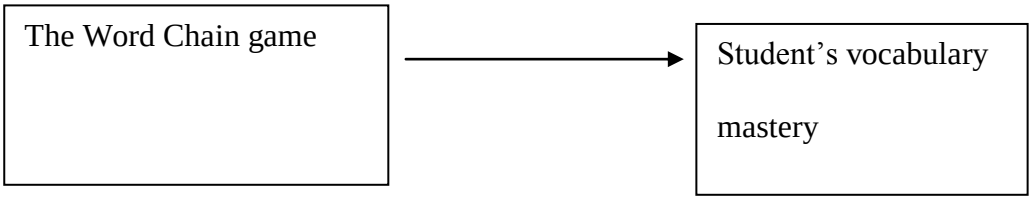
This game is needs high concentrate, focus, and understanding of the test, because there are many clues to help the students while doing the chain word. So, if the students have low understanding in doing this chain word, they can't do thischain word well. There will be many blanks in chain word. Thus, the students can't improve their vocabulary.

2.2. Conceptual Framework

Majority of students think that study about vocabulary is very difficult thing. So to teach it needs an attractive gamesto make it easier. The teachers game is so important to teaching and learning process because it influence the students' to join the lesson and improve their interest in learning.

In mastering vocabulary, we need games in teaching process. By choosing right games it can help the teacher to make teaching learning process run well. One of the games in here is using word chain games. These games can make the students enjoyable in vocabulary achievement. The teacher should be used the appropriate games in English teaching, because it can make students have interesting to join the lesson so that they can study more serious and their achievement will be better.

To make the conceptual framework clearer, so it can be seen the following draft below:



The hypothesis are formulated in the following:

H_a : There is significant effect of using chain game on the students' vocabulary mastery.

H_o : There is no significant effect of using chain game the students's vocabularymastery.

CHAPTER III

RESEARCH METHOD

3.1. Time and Place of the Study

This research will conduct at MTs SKB 3 Menteri Bingkat, Perbaungan in the second semester of 2018/2019. The reasons for choosing this school were: 1) the problem to be researched is found in this school.

3.2. Population and Sample

3.2.1. Population

Population is all data that concerns us in a scope and time that wespecify.[30] The population in this research was all students of MTs SKB 3 Menteri at Seventh Grade in academic year of 2017/2018. The population of the research was distributed as follow:

Table 1

The Distribution of Population

No	Class	Number of students
1	VII 1	40
2	VII 2	40
3	VII 3	38
4	VII 4	42
5	Total	160

[30] Syahrum, Salim, *Metodologi Penelitian Kuantitatif*, (Bandung : Citapustaka Media, 2016), p. 113

3.2.2. Sample

The population of this research in the second year student's of MTs SKB 3 Menteri Bingkat. The number of population is 160 students consists four classes. Namely grade VII I 40 students, class VII II 40 students. And it can be seen in this following table:

3.3. Research Design

In this case, experimental research was used to collect the data. Sample was divided into two classes one of the classes was assigned as the experimental group and the other one as the control group.

To collect the data, two groups were used. They were experimental group and control group. The experimental group was the group received the treatment using word chain game, while the control group was the group that only received conventional treatment. Although this group was treated differently, the giving of the material, the length of the time and the teacher were exactly.

3.4. Instrument of the Research

In collecting the data, the vocabulary test will be given to the students . pre-test and post-test will be conducted in both groups; experimental group and control group. The instrument of this research is test. Test is a set of question that make by the researcher and it will answer by the students. The test aimed to know the students' vocabulary. in this research, the students were given a test by the researcher. The test is of multiple choices.

3.4.1.2. Operational Definition

Vocabulary mastery is the ability of the students in using in using words in appropriate context.

3.4.1.2. Operational Definition

The students' vocabulary is the score of the students after doing the vocabulary test about the elements of school.

3.4.1.3. Specification

The data for this study were collected through quantitative way. In collecting the data, the research gave written assignment to the students as the instrument. It was analyzed the students' vocabulary mastery. In this case students need answer the question of multiple choices.

3.4.1.4. Caliberation

3.4.1.4.1. The Validity

Validity is a term that describes the ability of an instrument to measure what you want measured. Validity means talking about the validity of a measuring instrument to get the data.

The formulation of validity:

$$r_{xy} = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{N(\sum X^2) - (\sum X)^2\}\{N(\sum Y^2 - (\sum Y)^2\}}}$$

N = Number of samples
$\sum X$ = Score item
$\sum Y$ = Total scores

r_{xy} = Correlation coeffecient

To interprets the test validity price, consult the price at the criticism price of r at product moment, $\alpha = 0.05$. If $r_{count} > r_{table}$ so the item is valid.

3.4.1.4.2. The Reliability

To find out the realibility of the test, we can use Kuder Richardsonformula. The formula can be seen as follows:

$$r_{11} = \frac{K}{K-1}\left(1 - \frac{M(K-M)}{KS^2}\right)$$

Where :
K = The number of test items
M = Mean of the score
S = Standard deviation of the score[31]

3.5. Technique of Analyzing the Data

The technique is very important in research. In this research the technique consist of: pre-test, treatment, post-test, interview, and observation.

1. Pre-test

Both of groups, the experimental group and control group are given before treatment. The teacher will ask the students to answer the multiple choice test

2. Treatment

There are groups has taught, they are experimental group and control group. Experimental group was taught by using words search strategy. Control group was taught by using conventional method. There are four meetings in this research and each meeting consists of 40 minutes.

[31] Marzuki, *Statistika Terapan*, (DIY: Gadjah Mada University Press, 2000), p. 299

1. Post-test

After conducted the treatment, the post-test will be given to find out the result of teaching presentation in both groups. It will be applied to analyze and evaluate both of the groups, then to know the effect of the treatment.

3.6. Technique of Analyzing the Data

1. Normality test

Normality test was held to determine whether normal or abnormal research data or research variables.

a. The observation XI, X2, X3, … …, Xn are served raw numbers Z1, Z2, Z3, …, …, Zn using the formula. To count of raw numbers with the formulas :$Z_i = \frac{X_i - \bar{X}}{SD}$

X = Average sample
S = Standard deviation

For each of these raw numbers using standard normal distribution is calculated odds F (Zi) = P (Z ≤ Zi)

Furthermore, in calculating the proportion that expressed by S (Zi) then :

$$S(Z_i) = \frac{totalof Z_1, Z_2, \dots, Z_n which \leq Z_n}{n}$$

a. Calculate F (Zi) – S (Zi) and define the absolute priceDetermine the largest price of the difference F (Zi) – S (Zi) as Lo.[32]

1. Homogenity test

Homogeneity Test is used to determine whether the sample variance has the same or homogeneous variance, test of homogeneity is used with the following formula[33]

$$F = \frac{Highestvarians}{lowestvarians}$$

[32]*Penerapan Statistik Untuk Pendidikan*, Op. Cit, p. 253
[33]*Metode Statistika*, Op. Cit, p. 14

Criteria for testing Ho is rejected if $F \geq F_{0,05}$ (v1, v2) where $F_{0,05}$ (v1, v2) obtained from the F distribution list with a chance of α = 0,05 and α = 0,01,whereas the v1 and v2 degrees of freedom each corresponding to df numerator and denominator of the formula above.

$$\mathbf{t} = \frac{Ma - Mb}{\sqrt{\left(\frac{da^2 + db^2}{Na + Nb - 2}\right)\left(\frac{1}{Na} + \frac{1}{Nb}\right)}}$$

In which:

t : total score

Ma : the mean of experimental group

Mb : the mean of control group

Da^2 : the standard of deviation of experimental group

Db^2 : the standard of deviation of control group

Na : the total numbers of experimental group

Nb : the total numbers of control group

1. The Statistical Hypothesis

Statistical hypothesis is used in order to know the result ofobservationabout the sample quantitatively.

Ho : μ x 1 = μ x 2

Ha : μ x 1 < μ x 2

Where :

Ha : Alternative Hypothesis

Ho : Null Hypothesis

μ : Mean of Population

x : Mean of Sample

CHAPTER IV

FINDINGS AND DISCUSSIONS

4.1. Research Findings

4.1.1. Data Description

The data of this study were obtained from the result of the pre-test and post-test from both of group, the experimental group and control group. They were asked to answer eassy in vocabulary mastery.

This study was conducted on April 28th 2018 until May31th 2018. The pre-test was given before the treatment and post-test was given after treatment. The researcher gave the treatment to students in the experimental group (VII 1) by using Word chain game, while control group (VII II) without using game. After administering the treatment, the post was administered to both froups to measure the students vocabulary matery. Both treatments were conducted in four meetings. After conducting the research, the researcher got the data of students' score in pre-test and post-test.

4.1.1.1. The Data of the Students' Vocabulary

In collecting the data of the students' vocabulary mastery by using word chain game, the researcher gave a set of test to the students of VII-1. The result of this research was revealed in score form. Then the result of measurement that used the evaluation criteria stated in score form, and then computation from the data distribution which known as mean, variant and standard deviation. The complete data about the students' vocabulary mastery can be seen on the following table:

Table IV

The score of pre-test and post-test in Experiment Class

Students (Na)	Pre-test score (y_1)	Post-test score (y_2)
1	50	60
2	50	65
3	75	80
4	90	95
5	75	80
6	80	85
7	90	95
8	90	95
9	85	90
10	85	90
11	65	70
12	85	90
13	80	90
14	75	80
15	60	70
16	85	90
17	50	75
18	75	80
19	60	75
20	85	90
21	65	75
22	70	80
23	70	85
24	80	95
25	80	95
26	80	95
27	65	80

28	70	85
29	80	95
30	80	90
31	75	90
32	70	85
33	75	90
34	75	90
35	70	85
36	70	85
37	70	85
38	70	85
39	75	85
40	70	85
SUM	**2950**	**3385**
MAX	**90**	**95**
MIN	**50**	**60**
MEAN	**73.75**	**84.625**
Gain score	**10.875**	

The table above describes the score of pre-test, post-test and gain score for the experimental class. The pre-test had been before the teaching and learning of analytical exposition text. The number of students in experimental class who participated in test was 40.That the lowest score in pre-test is 50 and the highest score is 90. Meanwhile, the lowest score in post-test is 60 and highest score is 95. In other side, the mean score of pre-test is 73.75 , mean score of pos-test is84.625. Therefore, it can be summarized that the lowest and the highest score in post-test

is higher that in pre-test. After that, the researcher calculated for scores of control class.

Table V

The score of pre-test and post-test in Control Class

Name of Students	Pre Test Score	Post Test Score
01	60	65
02	75	85
03	70	75
04	80	85
05	70	75
06	65	70
07	55	65
08	50	55
09	80	85
10	80	85
11	60	75
12	70	70
13	60	85
14	80	80
15	50	60
16	75	85
17	60	75
18	60	70
19	70	75
20	60	70
21	75	80
22	75	80
23	70	75

24	65	75
25	80	85
26	75	80
27	80	85
28	70	80
29	70	80
30	70	80
31	65	75
32	65	70
33	65	70
34	55	65
35	75	85
36	60	75
37	65	80
38	65	70
39	80	85
40	70	75
SUM	**2725**	**3040**
Mean	**68.125**	**76**
MAX	**80**	**85**
MIN	**50**	**55**
Gain score M_b		**76 – 68.125= 7.875**

The table above describes the score of pre-test, post test, and gain score for the control class. That the lowest score in pre-test is 50 and the highest score is 80. Mean while, the lowest score in post test is 55 and the highest score is 85. In other side, the mean score of pre-test is68.125, mean score post-test is76.

Therefore, it can be concluded that the score of post-test in control class is higher than the score of its pre-test.

4.1.2.1. Normality Testing

Normality testing used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed.

a. Normality Testing of Experimental Group

Table 4.1

Frequency Distribution of Pre Test in Experimental Group

NO	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	50	3	150	2500	7500
2	60	2	120	3600	7200
3	65	3	195	4225	12675
4	70	9	630	4900	49100
5	75	8	600	5625	45000
6	80	7	560	6400	44800
7	85	5	425	7225	36125
8	90	3	270	8100	24300
Total		**40**	**2950**	**42575**	**221700**

Based on the data above, the result of $F_iX_i^2$ is 221700 and F_iX_i is 2950. Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

Where:

$\bar{x}$ = Mean of variable x

$\sum F_i X_i$ = Total number of score

$\sum F_i$ = Number of sample

So,

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

$$= \frac{2950}{40}$$

$$= 73.75$$

b. Variant

Where:

S^2 = Variant

N = Number of sample

So,

$$S^2 = \frac{n\sum FiXi^2 - (\sum FiXi)^2}{n(n-1)}$$

$$= \frac{40 \text{ x } 221700 - (2950)^2}{40(40-1)}$$

$$= \frac{8868000 - 8702500}{40(39)}$$

$$= \frac{165.500}{1560}$$

$$= 106.08$$

c. Standard Deviation

$$S = \sqrt{S^2}$$

$= \sqrt{106.08}$

$= 10.29$

Table 4.2

Normality Test of Pre-test in Experiment Class

No	Score	F	Fcum	(Zi)	F(Zi)	S(Zi)	F(Zi)- S(Zi)
1	50	3	3	-2.25	0.0122	0.075	-0.0628
2	60	2	5	-1.33	0.0918	0.125	-.0.0332
3	65	3	8	-0.85	0.1477	0.2	-0.0023
4	70	10	18	-0.36	0.3594	0.425	-0.0656
5	75	7	25	0.12	0.5478	0.625	-0.0772
6	80	7	32	0.60	0.7257	0.8	-0.0943
7	85	5	37	1.03	0.8621	0.925	-0.0629
8	90	3	40	1.57	0.9418	1	-0.0582
Total	**2950**			**Lo = 0.0772**			
Mean	**73.63**			**Lt = 0.14**			

a. Finding Z score

Formula: $Z_i\ 1 = \frac{Xi - \bar{\chi}}{s}$

$Z_i\ 1 = \frac{50 - 73.57}{10.29} = -2.25$ $Z_i 2 = \frac{60 - 73.57}{10.29} = -1.33$ $Z_i 3 = \frac{65 - 73.57}{10.29} = -0.85$

$Z_i 4 = \frac{70 - 73.57}{10.29} = -0.36$ $Z_i 5 = \frac{75 - 73.57}{10.29} = 0.12$ $Z_i 6 = \frac{80 - 73.57}{10.29} = 0.60$

$Z_i 7 = \frac{85 - 73.57}{10.29} = 1.03$ $Z_i 8 = \frac{90 - 73.57}{10.29} = 1.57$

b. $F(Z_{i)=}$ 0.5+/0.5- (based on the value name ex. If (-2.29 so use 0.5- then, see from the table for lilifors)

c. Finding $S(Z_i)$

$S(Z_i) = \frac{F\ Kum}{N}$

$\frac{3}{40}$= 0.075 $\frac{5}{40}$ = 0.125 $\frac{8}{40}$ = 0.2 $\frac{17}{40}$= 0.2

$\frac{25}{40}$ = 0.625 $\frac{32}{40}$ = 0.8 $\frac{37}{40}$= 0.925 $\frac{40}{40}$ = 1

From the table above, it can be seen that Liliefors observation or L_o = -0.0772 with n =40 and at real level α= 0.05 from the list of critical value of Liliefors table L_t = 0.14. It is known that the coefficient of L_o (-0.0722) < L_t (0.14). So it can be concluded that the data distribution of the student's vocabulary mastery is **normal.**

Table VIII

Frequency Distribution of Post Test in Experimental Group

NO	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	60	2	60	3600	3600
2	65	1	65	4225	4225
3	70	2	140	4900	9800
4	75	3	225	5625	16875
5	80	6	480	6400	38400
6	85	10	850	7225	72250
7	90	10	900	8100	81000
8	95	7	665	9025	63175
Total		**40**	**3385**		**289325**

Based on the data above, the result of $F_iX_i^2$ is 289325 and F_iX_i is 3385. Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

Where:

$\bar{x}$ = Mean of variable x

$\sum F_iX_i$ = Total number of score

$\sum F_i$ = Number of sample

So,

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

$$= \frac{3385}{40}$$

$$= 84.625$$

a. Variant

Where:

S^2 = Variant

N = Number of sample

So,

$$S^2 = \frac{n\sum FiXi^2 - (\sum FiXi)^2}{n(n-1)}$$

$$= \frac{40 \text{ x } 289325 - (3385)^2}{40(40-1)}$$

$$= \frac{10761000 - 10660225}{40(39)}$$

$$= \frac{114775}{1560}$$

$$= 73.57$$

b. Standard Deviation

S = $\sqrt{S^2}$

= $\sqrt{73.57}$

= 8.57

After get the calculation of mean, variant and deviation standard, the next step is to found out the normality of the test. It means that the test was given to the students is observed by Liliefors test. The calculation of normality of vocabulary mastery can be seen in the following table:

Table 4.3

Normality Test of Post-test in Experiment Class

No	Score	F	Fcum	(Zi)	F(Zi)	S(Zi)	F(Zi)- S(Zi)
1	60	1	1	-2.87	0.0021	0.025	-0.0229
2	65	1	2	-2.28	0.0113	0.05	-0.0887
3	70	2	4	-1.78	0.0375	0.1	-0.0625
4	75	3	7	-1.12	0.1314	0.175	-0.0436
5	80	6	13	-0.53	0.2981	0.325	-0.0269
6	85	10	23	0.04	0.516	0.575	-0.059
7	90	10	33	0.62	0.7324	0.825	-0.0926
8	95	7	40	1.21	0.8869	1	0.1131

Formula: $Z_i\ 1 = \frac{Xi - \bar{\chi}}{s}$

$Z_i\ 1 = \frac{60 - 84.625}{8.57}$ = -2.87 $Z_i 2 = \frac{65 - 84.625}{8.57}$ = -2.28 $Z_i\ 3 = \frac{70 - 84.625}{8.57}$ = -1.78

$Z_i 4 = \frac{75 - 84.625}{8.57}$ = -1.12 $Z_i 5 = \frac{80 - 84.625}{8.57}$ = -0.53 $Z_i\ 6 = \frac{85 - 84.625}{8.57}$ = 0.04

$Z_i\ 7 = \frac{90 - 84.625}{8.57}$ = 0.62 $Z_i\ 8 = \frac{95 - 84.625}{8.57}$ = 1.21

a. Finding $S(Z_i)$

$S(Z_i) = \frac{F\ Kum}{N}$

$\frac{1}{40}$= 0.05 $\frac{2}{40}$ = 0.05 $\frac{4}{40}$ = 0.1 $\frac{7}{40}$= 0.175

$\frac{13}{40}$ = 0.325 $\frac{23}{40}$ = 0.575 $\frac{33}{40}$= 0.825 $\frac{40}{40}$ = 1

From the explanation above,, it can be seen that Liliefors observation or L_o = 0.0926 with n =40 and at real level α= 0.05 from the list of critical value of Liliefors table L_t = 0.14. from the list critical value of Liliefors table, L_t = 0.14. It can be concluded that the data distribution was **normal**, because It is known that the coefficient of L_o(0.0926) < L_t (0.14).

Table 4.6

Frequency Distribution of Pre Test in Control Group

NO	Xi	Fi	F_{cum}	FiXi	Xi^2	$FiXi^2$
1	50	2	2	100	2500	5000
2	55	2	4	110	3025	6050
3	60	7	11	420	3600	25200
4	65	7	18	455	4225	29575
5	70	9	27	630	4900	44100
6	75	6	33	450	5625	33750
7	80	7	40	560	6400	44800
Total	**40**	-	-	**2725**	**30275**	**188475**

Based on the data above, the result of $F_iX_i^2$ is 188475 and F_iX_i is 2725. Then the following is the calculation of mean, variant and standard deviation.

a. Mean

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

Where: $\bar{x}$ = Mean of variable x

$\sum F_iX_i$ = Total number of score

$\sum F_i$= Number of sample

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

$$= \frac{2725}{40}$$

= 68.125

Variant

Where:

S^2 = Variant

N = Number of sample

$$S^2 = \frac{n\sum FiXi^2 - (\sum FiXi)^2}{n(n-1)}$$

$$= \frac{40 \text{ x } 188475 - (2725)^2}{40(40-1)}$$

$$= \frac{7539000 - 7425625}{40(39)}$$

$$= \frac{113375}{1560}$$

= 72.67

a. Standard Deviation

$$S = \sqrt{S^2}$$

$$= \sqrt{72.67}$$

= 8.52

After the get the calculation of mean, variant and deviation standard, the next step is to found out the normality of the test. It means that the test was given to the students is observed by Liliefors test. The calculation of normality vocabulary mastery can be seen in the following table:

Table 4.7

Normality Testing of Pre Test in Control Group

No	Score	F	Fcum	(Zi)	F(Zi)	S(Zi)	F(Zi)- S(Zi)
1	50	2	2	-2.11	0.017	0.05	-0.033
2	55	2	4	-1.52	0.0618	0.1	-0.0382
3	60	7	11	-0.94	0.1711	0.275	-0.1039
4	65	8	19	-0.35	0.3594	0.45	-0.0906
5	70	8	27	0.23	0.5871	0.675	-0.0879
6	75	6	33	0.82	0.7881	0.825	-0.0369
7	80	7	40	1.41	0.9177	1	-0.0823
			$L_{t=}$0.14			$L_{0=}$ -0.1039	

a. Finding Z score

Formula: $Z_i\ 1 = \frac{Xi - \bar{\chi}}{s}$

$Z_i\ 1 = \frac{50 - 68.125}{8.52}$ = -2.12 $Z_i2 = \frac{55 - 68.125}{8.52}$ = -1.54 $Z_i3 = \frac{60 - 68.125}{8.52}$ = -0.95Z_i4 = $\frac{65 - 68.125}{8.52}$ = -0.366 $Z_i7 = \frac{80 - 68.125}{8.52}$ =1.39 $Z_i5 = \frac{70 - 68.125}{8.52}$ = 0.22

$Z_i6 = \frac{75 - 68.125}{8.52}$ = 0.80

a. Finding S(Z_i)

$S(Z_i) = \frac{F\ Kum}{N}$

$\frac{2}{40}$= 0.05 $\frac{4}{40}$ = 0.1 $\frac{40}{40}$= 1

$\frac{11}{40}$ = 0.275 $\frac{18}{40}$= 0.45

$\frac{27}{40}$ = 0.675 $\frac{33}{40}$ = 0.825

From the table above,, it can be seen that Liliefors observation or L_o = -0.1039 with n =40 and at real level α= 0.05 from the list of critical value of Liliefors table L_t = 0.14. It is known that the coefficient of L_o (-0.0139) < L_t (0.14). So it can be concluded that the data distribution of the student's vocabulary mastery is **normal.**

Table 4.8

Normality Test of Post-test in Control Class

NO	Xi	Fi	FiXi	Xi^2	$FiXi^2$
1	55	1	55	3025	3025
2	60	1	60	3720	3720
3	65	3	195	4225	12675
4	70	7	490	4900	34300
5	75	10	750	5625	56250
6	80	8	640	6400	51200
7	85	10	850	7225	72250
Sum		**40**	**3040**	**35120**	**233420**

The result of $F_iX_i^2$ is 233420 and F_iX_i is 3040. Then the following is the calculation of mean, variant and standard deviation.

a. **Mean**

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

Where:

x = Mean of variable x

$\sum F_iX_i$ = Total number of score

$\sum F_i$ = Number of sample

$$\bar{x} = \frac{\sum Fi\ Xi}{\sum Fi}$$

$$= \frac{3040}{40}$$

$$= 76$$

Variant

Where:S^2 = Variant

N = Number of sample

$$S^2 = \frac{n\sum FiXi^2 - (\sum FiXi)^2}{n(n-1)}$$

$$= \frac{40 \text{ x } 233420 - (3040)^2}{40(40-1)}$$

$$= \frac{9336800 - 9241600}{40(39)}$$

$$= \frac{95200}{1560}$$

$$= 61.02$$

a. Standard Deviation

$$S = \sqrt{S^2}$$

$$= \sqrt{61.02}$$

= 7.81

After the get the calculation of mean, variant and deviation standard, then the next step is to found out the normality of the test. It means that the test was given to the students is observed by Liliefors test. The calculation of normality vocabulary mastery can be seen in the following table:

Table 4.9

Normality Testing of Post Test in Control Group

No	Score	F	Fcum	(Zi)	F(Zi)	S(Zi)	F(Zi)- S(Zi)
1	55	1	1	-2.68	0.0037	0.025	-0.0213
2-	60	1	2	-2.04	0.0207	0.05	-0.0293
3	65	3	5	-1.40	0.0808	0.125	-0.0442
4	70	7	12	-0.76	0.2236	0.3	-0.0764
5	75	10	22	-0.12	0.4522	0.55	-0.0978
6	80	8	30	0.51	0.695	0.75	-0.055
7	85	10	40	1.15	0.8749	1	-0.1251
Sum	3040	$L_{0=}$ -0.1251					
Mean	76	$L_{t=\ 0.14}$					

From the explanation above, it can be seen that the Liliefors Observation of Lo = 0,14 with n = 40 and at the real level α = 0.05 from the list critical value of Liliefors table, L_t = - 0.1251 . It can be concluded that the data distribution was normal, because $L_O(-0.1251) < L_t\ (0.14)$.

a. Finding Z score

Formula: $Z_i\ 1 = \frac{Xi - \bar{\chi}}{s}$

$Z_i\ 1 = \frac{55 - 76.125}{7.75} = -2.68$ $Z_i 2 = \frac{60 - 76.125}{7.75} = -2.04$

$Z_i 3 = \frac{65 - 76.125}{7.75} = -1.40$ $Z_i 4 = \frac{70 - 76.125}{7.75} = -0.76$

$Z_i 5 = \frac{75 - 76.125}{7.75} = -0.12$ $Z_i 6 = \frac{80 - 76.125}{7.75} = 0.51$

$Z_i 7 = \frac{85 - 76.125}{7.75} = 1.15$

a. Finding $S(Z_i)$

$S(Z_i) = \frac{F\ Kum}{N}$

$\frac{1}{40} = 0.025$ $\frac{2}{40} = 0.05$

$\frac{5}{40} = 0.125$ $\frac{11}{40} = 0.3$

$\frac{22}{40} = 0.55$ $\frac{30}{40} = 0.75$ $\frac{40}{40} = 1$

From the computation above, it can be seen that Liliefors observation or L_o = -0.1251with n =40 and at real level α= 0.05 from the list of critical value of Liliefors table L_t = 0.14. It is known that the coefficient of L_o (-0.1251) < L_t (0.14). So it can be concluded that the data distribution of the student's vocabulary mastery is **normal.**

4.1.2.2. Homogeneity Testing

Table VI

Homogenity Test of Pre-test

No	Data	Variants	$F_{observations}$	F_{table}	Conclusion
1	Pre-test of experiment class	106.08	1.45	1.69	Homogenous
2	Pre-test of control class	72.67			

$F_{observation} = \frac{S_1^2}{S_2^2}$

Where :

S_1^2 = the biggest variant

S_2^2 = the smallest variant

Based on the variants of both samples of pre-test found that :

S_{exp}^2 = 106.39 n = 40

S_{cont}^2 = 72.82 n = 40

So:

$F_{observation} = \frac{S_{exp}^2}{S_{cont}^2}$

$= \frac{106.06}{72.62} = 1.45$

Then the coefficient of $F_{observation} = 1.45$ is compared with F_{table} where F_{table} is determined at real level $\alpha = 0.05$ and the same numerator dk = n-1 (40-1=39), the demoninator dk = n-40 (40-1=39). Then F_{table} can be calculated by linear interpolation, so $F_{table\ (0.05;39;39)} = 1$.. Because of $F_{observation} < F_{table}$ ($1.45 < 1.69$) so it can be conclude that the variant is homogeneous.

Table VII

4.8 Homogenity Test of Post-test

No	**Data**	**Variants**	**$F_{observations}$**	**F_{table}**	**Conclusion**
1	Post-test of experiment class	73.57	1.20	1.69	Homogenous
2	Post-test of control class	61.02			

$F_{observation} = \frac{S_1^2}{S_2^2}$

Where :

S_1^2 = the biggest variant

S_2^2 = the smallest variant

Based on the variants of both samples of pre-test found that :

$S_{exp}^2 = 73.57$ n = 40

S^2_{cont} = 61.02 n = 40

So:

$F_{observation} = \frac{S^2_{exp}}{S^2_{cont}}$

$= \frac{73.57}{61.02} = 1.20$

Then the coefficient of $F_{observation} = 1.20$ is compared with F_{table} where F_{table} is determined at real level $\alpha = 0.05$ and the same numerator dk = n-1 (40-1=39), the demoninator dk = N-1 (40-1=39). Then F_{table} can be calculated by linear interpolation, so $F_{table\ (0.05;39;39)} = 1.69$. Because of $F_{observation} < F_{table}$ ($1.20 < 1.69$) so it can be conclude that the variant is homogeneous.

4.1.2.3. Hypothesis Testing

Then the coefficient of $F_{observation} = 1.20$ is compared with F_{table} where F_{table} is determined at real level $\alpha = 0.05$ and the same numerator dk = n-1 (40-1=39), the demoninator dk = n-1 (40-1=39). Then F_{table} can be calculated by linear interpolation, so $F_{table\ (0.05;39;39)} = 1.69$. Because of $F_{observation} < F_{table}$ ($1.20 < 1.69$) so it can be conclude that the variant is homogeneous.

A.1.3 Hypothesis Testing

The hypothesis was aimed to show the result of the observation sample quantitatively and also to know whether the application of word chain game affects students in vocabulary, so the hypothesis were :

$H_o = \mu x < \mu y$

$H_a = \mu x > \mu y$

From the criteria of the hypothesis, H_a is accepted if $t_{observation} > t_{table}$

Based on the result of the data that the research got in this research, the researcher counted the hypothesis test. It was analyzed by applying t_{test} formula. The formula was stated as the following :

$$t = \frac{Ma - Mb}{\sqrt{\left(\frac{Da^2 + Db^2}{Na + Nb - 2}\right)\left(\frac{1}{Na} + \frac{1}{Nb}\right)}}$$

Where :

t : total score

Ma : the mean of experimental group

Mb : the mean of control group

Da^2 : the standard of deviation of experimental group

Db^2 : the standard of deviation of control group

Na : the total numbers of experimental group

Nb : the total numbers of control group

Before calculating t_{test} data, it used the formula below to find out the deviation standard of both classes

Table 4.9

The Tabulation of Students' Score of Experimental Class

Students (Na)	**Pre-test score (x_1)**	**Post-test score (x_2)**	**D = (x_2- x_1)**
1	50	60	10
2	50	65	15

3	75	80	5
4	90	95	5
5	75	80	5
6	80	85	5
7	90	95	5
8	90	95	5
9	85	90	15
10	85	90	5
11	65	70	5
12	85	90	5
13	80	90	10
14	75	80	5
15	60	70	20
16	85	90	5
17	50	75	25
18	75	80	5
19	60	75	15
20	85	90	5
21	65	75	10
22	70	80	10
23	70	85	15
24	80	95	5
25	80	95	15
26	80	95	15
27	65	80	20
28	70	85	15
29	80	95	15
30	80	90	10
31	75	90	15
32	70	85	15

33	75	90	15
34	75	90	15
35	70	85	15
36	70	85	15
37	70	85	15
38	70	85	15
39	75	85	15
40	70	85	15
Gain score (Ma) (*M* post-test – *M* pre-test)		**455** **11.125**	

Table 4.10

The Tabulation of Students' Score of Control Class

Pre-test score (y_1)	**Post-test score (y_2)**	**Decrease**
60	65	5
75	85	10
70	75	5
80	85	5
70	75	5
65	70	5
55	65	10
50	55	5
80	85	5
80	85	5
60	75	15

60	70	10
70	85	15
75	80	5
50	60	10
80	85	5
60	75	15
60	70	10
70	75	5
60	70	10
75	80	5
75	80	5
70	75	5
65	75	10
80	85	5
75	80	5
80	85	5
70	80	10
70	80	10
70	80	10
65	75	10
65	70	5
65	70	5
55	65	10
75	85	10
60	75	15
65	80	15
65	70	5
80	85	5
70	75	5
SUM **Mean**		**315**

MAX	**80**	**85**
MIN	**50**	**55**
Mean	**68.125**	**76**
Gain Score M_a **M(post test)–** **M(pre-test)=**	**76-68.125** **=7.875**	

Based on the calculation above, the result was as follows :

Ma = 11.125

Mb = 7.875

Da^2 = 1176.85

Db^2 = 1002.23

Na = 40

Nb = 40

So, t_{test} can be counted as follows :

$$t = \frac{Ma - Mb}{\sqrt{\left(\frac{Da^2 + Db^2}{Na + Nb - 2}\right)\left(\frac{1}{Na} + \frac{1}{Nb}\right)}}$$

$$t = \frac{11.125 - 7.875}{\sqrt{\left(\frac{1176.85 + 10046.86}{40 + 40 - 2}\right)\left(\frac{1}{40} + \frac{1}{40}\right)}}$$

$$t = \frac{3.25}{\sqrt{\left(\frac{2178.873}{78}\right)(0.05)}}$$

$$t = \frac{3.25}{\sqrt{(1.425)}}$$

$$t = \frac{3.25}{\sqrt{1.425}}$$

$$t = \frac{3.25}{1.19}$$

$$t = 2.73$$

From the calculation of the data, it can be seen that there were differences score between two classes; experiment and control class. In order to find out the significant effect between two groups that using word chain game, the researcher analyzed the data by applying t_{test} formula to prove the hypothesis of this research. It was obtained that the value of $t_{observation}$ was 2.73.

In this research, the value of t_{table} for the degree freedom (df) 78 at level of significance 0.05 that the value of $t_{observation}$ (15.5 is higher that the value of t_{table} (1.994). it can be conclude that 2.73>1.994.

This result showed that the alternative hypothesis (H_a) is accepted and null hypothesis was rejected, the hypothesis formulated as "there is significant effect of using word chain game on the students' vocabulary mastery. It means that word chain game significantly affected students' vocabulary mastery.

4.2. Discussions

There was a significant difference on students' vocabulary mastery by using wordchain game. The students that were taught by wordchain game have higher score than were taught by conventional or without game.

It was explained in chapter II Carrol states that word chain game is a kind of game purposing to improve the players ability in vocabulary or words. The objective of this game is to increase their vocabulary from what they hear and see. It should be connected the word in last word. The player mention a word and

then the next player connecting the word with take the last letter. Games also will encourage and motivate students to learn in order to make the learning process fun and exciting. Games are an effective way of giving meaning, motivating, atmosphere that relaxes and gives students the chance to develop their skill and language skill.

From the calculation above it found that $t_{observed}$ = 2.73 whereas the t_{table} = 1.994. It shows that students' vocabulary mastery was significant at 0.05. From the result, the researcher found that there was significant of the students' vocabulary mastery by using word chain game. This means that the students' vocabulary mastery that were taught by word chain game was better than ta' without game.

CHAPTER V

CONCLUSION AND SUGGESTIONS

5.1. Conclusion

From the data obtained it is seen that the result of the students' vocabulary mastery by using word chain game is higher than without game at the seventh grade of MTs SKB 3 Menteri Bingkat. Word chain game is significant to be used in increasing the students' vocabulary mastery. The result of $t_{observed}$ is 2.73and t_{table} is 1.994 ($t_{observed} > t_{table}$, 2.73>1.994). It means that H_0 is rejected and H_a is accepted. There is a significant effect of word chain game on the students'vocabulary mastery.

5.2. Suggestions

Based on the conclusion above, the researcher gives some suggestions as follows:

1. English teachers are suggested to use word chain game in their teaching learning process in order to increase the students vocabulary mastery.
2. The researchers who are interested in doing a research related to this study should try to apply word chain game on different level of learners through different genre to prove the effect of on students' vocabulary mastery.

Finally, the resarcher considered this research need validity from the next researcher that has the similar topic with this study.

REFERENCE

Adachitoka (2015). *Noragami: Stray God Volume 5: Stray God 5,* Volume

Retrieved March 8th, 2017 from books.google.co.id.

Agoestyowaty, Redjeki. 2007. *102 English Games(from A to Z).* Jakarta: PT.Gramedia Pustaka

Utama.

Aryani,W.(2015).*The Effectiveness ofUsing Wordchain Game to ImproveVocabulary*

Mastery. (Bachelor's thesis, State Institute for IslamicStudies

Salatiga,Indonesia).Retrieved on june 20th 2017

Bloom, B. S. (1968). Learning for Mastery. *UCLA - CSEIP Evaluation*

Comment,center for the study of Evaluation of Instructional Programs,1(2),RetrievedMarch3rd2017from*programs.honolulu.hawaii. edu.intranet.*

Carroll, Lewis. 2007. *Word Chains-the game of subtlechanges*. Retrieved on March 20th2010 at 09; 45 pmfrom: www.wordchains.com/faq.php

David C- Carter. (2004). *Quantitative psychological research.* Psychological

press.

Deesri, Angkana. 2002. Games in ESL and EFL Class, Khon Khaen University,

Khon Kaen, Thailand

Decure, Nicole. 1993. *Designing vocabulary games:How to Use Words From*

Text. Vol 31 no.3, july-september 1993. Retrieved on March 20th2010 at 09;00

Dory GN . 1996. *Games for Second Teaching Learning.*cambridge: university Press

Eichel, C. (2014). *Grade 4 Word Chains and Games Critical Thinking Activities.*Retrieved March 2nd, 2017 from books,google.co.id.

Felder, RM & Brent, R. (2005). Understanding Student Differences. *Journal of Engineering Education, 94 (1), 57-72*. Retrieved March 15th, 2017 fromwww4.ncsu.edu/unity/lockers/users/f/felder/public/.../Understanding_Diff

Firmansyah, A.Y. & Adi, H (2015). Applying The "Word Chain" Game To Teach Descriptive Speaking To The Eight Graders In Smpn 26 Surabaya. *JurnalMahasiswa UNESA, 3 (2), 1-7.* Retrieved March 2nd, 2017 fromhttp://jurnalmahasiswa.unesa.ac.id.

Gaims, R and Readman S. 1986. *Working with Words: A Guide to Teaching and Learning Vocabulary*. Cambridge: Cambridge UniversityKamil, M.L., and Hiebert, E. H. 2005. *Teachihg and Learning Vocabulary: Bringing Scientific Research to Practice*. Mahwah. New Jersey: Laurance Erlbaum Associates

Hemscott. 2007. *Word Chains*. Retrieved on March 20th 2010 at 09; 45 pm from: www.spelling.hemscott.net/puzzles12.html

H. Martin *Oxford learner Pocked Dictionary* (Longman, England, 1999)

Huyen . 2003. *The Effectivness of Learning Vocabulary Through Games.United State:* NTT.

Hornby, As. 1992. The Advance Learner's Dictionary of Current English

(London: Oxpord University press)

Hyakka, Y. (2014). *Kazuhide: Nihon'nobunka kanko rekishi jiten*. Retrieved March2nd, 2017 from books.google.co.id.

Israel, S. (2008). *Vocabulary Lists and Activities for the PreK-2 Classroom:Integrating Vocabulary, Children's Literature, and Think-Aloud to Enhance Literacy*. Retrieved February 15th, 2017 from books.google.co.id.

Langeling MM and Malarcher. 2014. *A Natural Resource for Teacher the InternetTESL. vol, 35*.

Vetter, Keith. 2006. *Word Chain*. Retrieved on March 20th 2010 at 09; 45 pm from: wiki.tcl.tk/17031.2006

APPENDIX I

LESSON PLAN

(RPP)

Name of School	**: MTS SKB 3 MENTERI BINGKAT**
Subject	**: BAHASA INGGRIS**
Class/Semester	**: VII/II**
Time Allocation	**: 2X45 (2x meeting)**
Learning Topics	**:Writing**
Meeting	**: 1**

A. The core competencies

C1. Living and practicing the religious teachings that someone embraces

C2. To live and practice honest, behavior, discipline, responsibility, care, polite responsive and pro-active and show attitude as part of the solution to problems in interacting effectively with social and natural environment and in placing self as a reflection of the nation in the association of the world.

C3. Understanding, applying analyzing factual, conceptual, procedural knowledge based on his curiosity about science, technology, art, culture and humanities with insights of humanity, nationality, state and civilization related causes of phenomena and events, and applying procedural knowledge to the field of study which is specific to his or her talents and interests to solve problems.

C4. Processing, reasoning and chanting in the realm of concrete and abstract realms are linked to the development of the self-studied school, and are able to use methods according to scientific rules.

B. Basic competence

1.1 Thankful for the opportunity to learn English as the medium introduction of international communication embodied in the spirit of learning.

1.2 Demonstrate polite caring behavior in carrying out interpersonal communication with teachers and friends.

2.2 Demonstrate honest, discipline, confident, and responsible behavior in carrying out transactional communication with teachers and friends.

2.3 Demonstrate responsibility, caring, cooperative, and peace loving behavior, in carrying out functional communication

C. Indicator

1.2.1 Responsible for the actions of its members as group leader

1.2.2 Recognize when making mistakes

1.2.3 Do not blame others for their own actions

1.2.4 Do the things said to be done without being reminded by others.

1.2.5 Delivering interpersonal greeting in writing about renowned for social functions, text structures and linguistic elements that are true to context

D. Students' character that is expected

- Responsibility
- Hard work
- Independency

E. Learning Objectives

After following a series of lessons, learners:

1. Able to write vocabulary about the how to make something

2. be able to write the phrase word in procedure text correctly after given example from teacher.

3. Being able to write procedure text by taking into account the correct social function, text structure, and linguistic elements in context after being given an example from the teacher.

F. Learning Material

a. Communication Practice
b. Recalling Vocabulary
   - About how make something in things. etc
c. Grammar Practice
   - Explanation and exercise.

Material

Procedure Text is designed to describe how something is achieved through a sequence of actions or steps.

Purpose is to help us do a task or make something. They can be a set of instructions or directions.

Generic Structure of procedure text

1. Goal (The final purpose of doing the instructions)

2. Materials (Ingredients, utensils, equipment to do the instructions)

3. Steps (a set instructions to achieve the final purpose)

Language features

1. Using simple present tense

2. use time connection

3. use of imperative sentence/command

How to make Sandwich

Materials:

- Two slices of bread
- Fried egg
- Cheddar cheese
- Peanut butter
- A banana
- Honey

  Steps

  1. Take two slices of bread
  2. Spread peanut butter
  3. Cut up a banana into small slices and put them on one of the slices of bread
  4. Pour some honey over the bananas
  5. put the other slice of bread on top.

H. Learning Method: Chain Word Game

I. Teaching and Learning Process

Pre-Activities (+- 10 minutes)

Greeting the students

- Checking the students' attendance
- Motivating the students and describing the material which are going to be discussed generally
- Telling the objective of the lesson

Whilst- Activities (+-70 minutes)

a) Asking the students new vocabulary about how to make sandwich or review the characteristics of procedure text

b) Teacher asking what foods or drinks students like. Teacher asks students how to make something with show the picture. Invite the students to pronounce and write the new vocabulary relate to how to make sandwich on the white board.

- Who likes coffee?

- Do you know how to make a cup of coffee?

- What are ingredients?

-What are steps?

c) Applying word Chain Game through learning process of new vocabulary about anything to make something in this case sandwich or anything. One students will be mention one vocabulary and the next player will be continuous the game.

d) Opening question and answer session or asking the students difficulty

e) Giving positive feedback and reinforcement orally or by using gestures for the students' success.

Vocabulary to procedure text

- Boil:	**- Step**	**- Cup**	**-Goal**
-bake	**-Serve**	**- Pour**	**- Material**
-Garnish	**-Spoon**	**- Add**	**- Leak**
-Broil	**- Plate**	**-Use**	**- Egg**
-Melt	**- Knife**	**-Mix**	**- Beat**
-Put	**-Peel**	**-Press**	**- Slice**
-First, Second, Then,		**-Organise**	**-Wash**

Post-Activities (+- 10 minutes)

- Summarizing the material which has already been discussed
- Closing the class

J. References / Media

Relevant English book for look a Head 1 from 7th grade of Senior High School

K. Assessment

Instrument : multiple choice

Guidelines Assessment

1. Each number is properly scored : 5
2. Maximum Score : 20 X 5 = 100
3. Maximum assessment : 100
4. Student grade : Earnings Score

---------- X 100

= Maximum Score

Headmasterof	Teacher	Researcher
MTS SKB 3 MENTERI		
Muhammad Aris S.Pd	RatnaYunita, S.Pd	JerniGultom
(NUPTK.6852753657200002)	(1662761666300002)	(NIM.34143035)

APPENDIX II

Questions

Read carefully and choose the best answer between A,B,C,D

The table below is for question number 1-5

The ways to activate the hand phone

1. First, open the cover of the hand phone.

2. Secondly, open the battery part of the phone and you can find sim card slot inside.

3. Third, insert the sim card slot and put back the battery.

4. Fourth, close the battery with a cover of the hand phone.

5. Fifth, connect the cable of charger to the hole in the bottom of the hand phone.

Charging the battery may take four up to six hours.

6. Sixth, when the battery is fully charged, the bar will stop scrolling.

7. Seventh, we can activate the hand phone with pushing the button on the side of it.

8. Finally, we are ready to use our hand phone.

1. What kind of text above?

a. Narrative text c. Procedure text

b. Recount text d. Spoof e. Descriptive text

2. The text describes?

a. How to get a hand phone

b. How to activate a hand phone

c. The materials of a hand phone

d. How to put a sim card.

3. What should we do after inserting the sim card?

a. Open the cover of the hand phone

b. Disconnect the charger

c. Close the battery with the cover of the hand phone

d. Insert the battery inside

4. " The ways to activate the hand phone"

The synonym of the underlined word is…

a. Ingredients c. Steps

b. Performances d. Devices

5. Fifth, connect the cable of charger to the hole in the bottom of the hand phone ". The antonym of the underlined word is…

a. The height c. The length

b. The case d. The upper

Read the text carefully and answer the questions from number 6 until 10

How to make Sandwich

Materials:

- Two slices of bread
- Fried egg
- Cheddar cheese
- Sliced Tomato
- Tomato Sauce
- Lettuce leaves
- Mayonnaise

Steps

1. Firstly, place a slice of bread on the plate
2. Second, put the tomato sauce.
3. Then, add fried egg, cheddar cheese, and tomato sauce on it.

4. Next add lettuce leave

5. After that put a slice of bread on the top to cover them

6. Finally, sandwich is ready to serve

6. How many steps that they use to make sandwich?

a. 3 c. 6

b. 5 d.7

7. What we do after add lettuce leave?

a. Put a slice of bread on the top to cover them

b. Sandwich is ready to serve

c. Add fried egg

d. Put the tomato sauce

8. How many material that we use to make sandwich?

a. 3 c.7

b.6 d.8

9. how many slice of bread that we use to make a sandwich above?

a. 4 c. 3

b.2 d. 1

10. what the next step after put the tomato sauce?

a. put a slice of bread on the top to cover them

b. add fried egg, cheddar cheese, and tomato sauce on it

c. add lettuce leave

d. sandwich is ready to serve

11. How to make an ice cream:

Ingredients:
- 2 cups heavy cream
- 1 cup whole milk
- 2/3 cup sugar
- 1 teaspoon vanilla

Extract

Steps:

- First, mix the ingredients
- Second heat until the sugar is dissolved
- Third, chill the mixture in the refrigerator
- Next, freeze the ice cream in an ice cream maker
- After that, add chopped chocolate bar
- Finally, finish freezing the ice cream.

Answer the questions below:

11. What is the purpose of the text?

a. How to make an ice cream

b. How to buy an ice cream

c. How to sell an ice cream

d. How to save an ice cream

12. What are ingredients we need to make an ice cream?

a. 2 cups heavy cream, 1 cup whole milk, 2/3 cup sugar, 1 teaspoon vanilla extract

b. 1 cups heavy cream, 1 cup whole milk, 2/3 cup sugar, 1 teaspoon vanilla extract

c. 2 cups heavy cream, 1 cup whole milk, 2/3 cup sugar, 1 teaspoon chocolate extract

d. 2 cups heavy cream , 2 cup whole milk, 2/3 cup sugar, 2 teaspoon vanilla extract

13. What should we do first to make an ice cream based on the text?

a. buy the ingredients

b. Mix the ingredients

c. Heat until the sugar is dissolved

d. heat the water

14. What second step to make an ice cream based on the text?

a. Heat until the sugar is dissolved

b. Mix the ingredients

c. Add chopped chocolate bar

d. Add topping

15. What should we do after we heat until the sugar is dissolved?

a. Freeze the ice cream in an ice cream maker

b. Add chopped chocolate bar

c. Chill the mixture in the refrigerator

d. add an ice cream to bowl

16. What should we do after we chill the mixture in the refrigerator?

a. Add chopped chocolate bar

b. Freeze the ice cream in an ice cream maker

c. Finish freezing the ice cream

d. Chill the mixture in the refrigerator

17. How much milk that we need to make an ice cream based on the text?

a. 2 cups

b. 1 cup

c. 1/2 cup

d. 2/3 cup

18. How much milk that we need to make an ice cream based on the text?

a. 2 cups

b. 3 cups

c. 1 cup

d. 2/3 cup

19. How much milk that we need to make an ice cream based on the text?

a. 2/3 cups

b. 3/2 cups

c. 1/3 cups

d. 2 cups

20. What is the last steps of making an ice cream?

a. Add chopped chocolate bar

b. Finish freezing the ice cream

c. Mix the ingredients

d. mix ice cream

Key Answer

1. C

2. B

3. D

4. C

5. B

6. B

7. A

8. C

9. B

10. B

11. A

12. A

13. B

14. A

15. C

16. B

17. A

18. C

19. A

20. B

APPENDIX III

Name of students VII 1

NO Absent	Name of Students
1	Asty Nurbaity
2	Ayuni
3	Ayusita
4	Bagus
5	Benni Harahap
6	Billi Febrian arisandi
7	Della Sapitri
8	Devi
9	Dewi Puspita
10	Dwi Oktavian
11	Eka Putra Darmawan
12	Emawati
13	Eprida Srasuti
14	Estriasi
15	Hamizi
16	Husna Mawaddah
17	Hombin
18	Ilham Syahputra
19	Jeni Apriyani
20	Jimin
21	Junjung apriyan
22	M.Aldiansyah
23	M.Ridho AL-Hafiz
24	M.Iqbal Prayogi
25	Maya Natasya

26	Novita Amelia
27	Nurul Hidayati
28	Padli syarif
29	Pinapilhia
30	Pito Dravara
31	Rani Suryani
32	Riski syurif
33	Rumata D
34	Sandi mardani
35	Seriawan
36	Siti Aisa
37	Suhendi
38	Syukrimal hamdi
39	Wahyu Syahputra
40	Yulianti

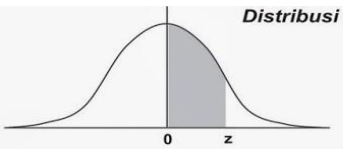
NO Absent	Name of Students
1	Adel Aprilla
2	Alyssa Mawaddah
3	Annisya eka
4	Ariq Gustama
5	Ariq hidayat
6	Bayu Syahputra
7	Chesya Bintang Serin
8	Cindi Anggraini
9	Cindi Natasya lalita
10	Cindi Thalia
11	Ekarida Reisya
12	Erina Nursyafitri
13	Faisal Rahmat Nuryanto

14	Faizal Abizar
15	Glyceria Ericha
16	Hanafa Hasnata
17	Jiyi malikah
18	Joseim feirrah
19	Karina
20	Mitha peratasari
21	M. Attariq Aditya
22	M. Indra
23	M. Rahmadito
24	Murfid Aufa Rachman
25	Nadia Dinda Safira
26	Naufal Irsaly
27	Rahadian Aldii syahputra
28	Sania Chairunnisa
29	Shafia Fahira
30	Sherin darmani
31	Siska sweriani
32	Tari mirwah
33	Tetti homidasani
34	Tomi Suyihamdi
35	Umirul Iffa Daniswari
36	Ugiadam Farhan
37	Wafa Harahap
38	Wafi seif sungiro
39	Yusuf Mushaki
40	Zhafisah mandaili

APPENDIX IV

TABLE DSTRIBUTION NORMAL BAKU 0-Z

Kumulatif sebaran frekuensi normal
(Area di bawah kurva normal baku dari 0 sampai z)



Z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990
3.1	0.4990	0.4991	0.4991	0.4991	0.4992	0.4992	0.4992	0.4992	0.4993	0.4993
3.2	0.4993	0.4993	0.4994	0.4994	0.4994	0.4994	0.4994	0.4995	0.4995	0.4995
3.3	0.4995	0.4995	0.4995	0.4996	0.4996	0.4996	0.4996	0.4996	0.4996	0.4997
3.4	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4997	0.4998
3.5	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998	0.4998
3.6	0.4998	0.4998	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.7	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.8	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999	0.4999
3.9	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000

Dipergunakan untuk kepentingan Praktikum dan Kuliah Statistika Agrotek cit. Ade

Source : http://jam-statistic.blogspot.co.id/2014/04/cara-menentukan-nilai-alpha-dengan.html

APPENDIX V
THE CRITICAL VALUE LILIEFORS TEST

Ukuran Sampel	Taraf Nyata (α)				
	0,01	0,05	0,10	0,15	0,20
n = 4	0,417	0,381	0,352	0,319	0,300
5	0,405	0,337	0,315	0,299	0,285
6	0,364	0,319	0,294	0,277	0,265
7	0,348	0,300	0,276	0,258	0,247
8	0,331	0,285	0,261	0,244	0,233
9	0,311	0,271	0,249	0,233	0,223
10	0,294	0,258	0,239	0,022	0,215
11	0,284	0,249	0,230	0,217	0,206
12	0,275	0,242	0,223	0,212	0,199
13	0,268	0,234	0,214	0,202	0,190
14	0,261	0,227	0,207	0,194	0,183
15	0,257	0,220	0,201	0,187	0,177
16	0,250	0,213	0,195	0,182	0,173
17	0,245	0,206	0,189	0,177	0,169
18	0,239	0,200	0,184	0,173	0,166
19	0,235	0,195	0,179	0,169	0,163
20	0,231	0,190	0,174	0,166	0,160
25	0,200	0,173	0,158	0,147	0,142
30	0,187	0,161	0,144	0,136	0,131
n > 30	$\frac{1,031}{\sqrt{n}}$	$\frac{0,886}{\sqrt{n}}$	$\frac{0,805}{\sqrt{n}}$	$\frac{0,768}{\sqrt{n}}$	$\frac{0,736}{\sqrt{n}}$

Source: Sudjana. *Metoda Statistika*. Bandung: Tarsito, 2002

APPENDIX VI

PERCENTAGE POINTS OF T DISTRIBUTION

DF	**AP**		**0.80 0.20**	**0.90 0.10**	**0.95 0.05**	**0.98 0.02**	**0.99 0.01**	**0.995 0.005**	**0.998 0.002**	**0.999 0.001**
1			3.078	6.314	12.706	31.820	63.657	127.321	318.309	636.619
2			1.886	2.920	4.303	6.965	9.925	14.089	22.327	31.599
3			1.638	2.353	3.182	4.541	5.841	7.453	10.215	12.924
4			1.533	2.132	2.776	3.747	4.604	5.598	7.173	8.610
5			1.476	2.015	2.571	3.365	4.032	4.773	5.893	6.869
6			1.440	1.943	2.447	3.143	3.707	4.317	5.208	5.959
7			1.415	1.895	2.365	2.998	3.499	4.029	4.785	5.408
8			1.397	1.860	2.306	2.897	3.355	3.833	4.501	5.041
9			1.383	1.833	2.262	2.821	3.250	3.690	4.297	4.781
10			1.372	1.812	2.228	2.764	3.169	3.581	4.144	4.587
11			1.363	1.796	2.201	2.718	3.106	3.497	4.025	4.437
12			1.356	1.782	2.179	2.681	3.055	3.428	3.930	4.318
13			1.350	1.771	2.160	2.650	3.012	3.372	3.852	4.221
14			1.345	1.761	2.145	2.625	2.977	3.326	3.787	4.140
15			1.341	1.753	2.131	2.602	2.947	3.286	3.733	4.073
16			1.337	1.746	2.120	2.584	2.921	3.252	3.686	4.015
17			1.333	1.740	2.110	2.567	2.898	3.222	3.646	3.965
18			1.330	1.734	2.101	2.552	2.878	3.197	3.610	3.922
19			1.328	1.729	2.093	2.539	2.861	3.174	3.579	3.883
20			1.325	1.725	2.086	2.528	2.845	3.153	3.552	3.850
21			1.323	1.721	2.080	2.518	2.831	3.135	3.527	3.819
22			1.321	1.717	2.074	2.508	2.819	3.119	3.505	3.792
23			1.319	1.714	2.069	2.500	2.807	3.104	3.485	3.768

24			1.318	1.711	2.064	2.492	2.797	3.090	3.467	3.745
25			1.316	1.708	2.060	2.485	2.787	3.078	3.450	3.725
26			1.315	1.706	2.056	2.479	2.779	3.067	3.435	3.707
27			1.314	1.703	2.052	2.473	2.771	3.057	3.421	3.690
28			1.313	1.701	2.048	2.467	2.763	3.047	3.408	3.674
29			1.311	1.699	2.045	2.462	2.756	3.038	3.396	3.659
30			1.310	1.697	2.042	2.457	2.750	3.030	3.385	3.646
31			1.309	1.695	2.040	2.453	2.744	3.022	3.375	3.633
32			1.309	1.694	2.037	2.449	2.738	3.015	3.365	3.622
33			1.308	1.692	2.035	2.445	2.733	3.008	3.356	3.611
34			1.307	1.691	2.032	2.441	2.728	3.002	3.348	3.601
35			1.306	1.690	2.030	2.438	2.724	2.996	3.340	3.591
36			1.306	1.688	2.028	2.434	2.719	2.991	3.333	3.582
37			1.305	1.687	2.026	2.431	2.715	2.985	3.326	3.574
38			1.304	1.686	2.024	2.429	2.712	2.980	3.319	3.566
39			1.304	1.685	2.023	2.426	2.708	2.976	3.313	3.558
40			1.303	1.684	2.021	2.423	2.704	2.971	3.307	3.551
42			1.302	1.682	2.018	2.418	2.698	2.963	3.296	3.538
44			1.301	1.680	2.015	2.414	2.692	2.956	3.286	3.526
46			1.300	1.679	2.013	2.410	2.687	2.949	3.277	3.515
48			1.299	1.677	2.011	2.407	2.682	2.943	3.269	3.505
50			1.299	1.676	2.009	2.403	2.678	2.937	3.261	3.496
60			1.296	1.671	2.000	2.390	2.660	2.915	3.232	3.460
70			1.294	1.667	1.994	2.381	2.648	2.899	3.211	3.435
80			1.292	1.664	1.990	2.374	2.639	2.887	3.195	3.416
90			1.291	1.662	1.987	2.369	2.632	2.878	3.183	3.402
100			1.290	1.660	1.984	2.364	2.626	2.871	3.174	3.391
120			1.289	1.658	1.980	2.358	2.617	2.860	3.160	3.373
150			1.287	1.655	1.976	2.351	2.609	2.849	3.145	3.357
200			1.286	1.652	1.972	2.345	2.601	2.839	3.131	3.340

300			1.284	1.650	1.968	2.339	2.592	2.828	3.118	3.323
500			1.283	1.648	1.965	2.334	2.586	2.820	3.107	3.310
∞			1.282	1.645	1.960	2.326	2.576	2.807	3.090	3.291

APPENDIX VII

Table of Validity

| Kode Sis | Butir Pertanyaan | | |